

WATER RESOURCES

FISH KILLS AND ADVISORIES

Indicator 4. Fish Kills and Fish Consumption Advisories

Background Kentucky's waterways provide habitat to numerous species of plants, animals and fish. But pollution and ecosystem alterations, such as dams and the removal of vegetation along waterways, have impacted several species of aquatic life. For example, 40 percent of the state's 103 native mussels now are considered rare, and 61 species of freshwater fish are considered at risk due to pollution and ecosystem alterations. In 1997-1999, 22 percent of the 8,581 miles of waterways assessed for aquatic life could not fully support or only partially support this use.

Goal Ensure that the waters of the Commonwealth support healthy fish populations and that the fish are safe to eat.

Progress Data reveal a general decline in the number of fish kill incidents in the Commonwealth. The decline may be attributed to better controls to prevent and contain spills and avoid contamination of waterways.

However, in May 2000, a fire at the Wild Turkey Distillery set the record for the number of fish killed from a single spill in Kentucky. The fire at the distillery in Anderson County resulted in the release of 500,000 gallons of bourbon into the Kentucky River. The incident caused a record 227,692 fish to perish. The state estimated the value of the fish at \$471,621. The parent company of Wild Turkey Distillery agreed to compensate the state \$256,000 to cover the cost of the fish killed due to the incident.

Toxic chemicals are also increasingly being detected in fish tissue as more testing occurs. State health and environmental officials added two new fish consumption advisories in 2000 to the existing six. In April 2000, a fish consumption notice was issued for all waterways and lakes due to low levels of organic mercury found in fish tissue. Women of childbearing age and children six years and under have been advised not to eat more than one meal per week of freshwater fish. A major source of mercury is emissions from coal-fired power plants. The U.S. Environmental Protection Agency has indicated that it plans to draft regulations to limit

At a Glance

Miles of waterways assessed for aquatic life 8,581

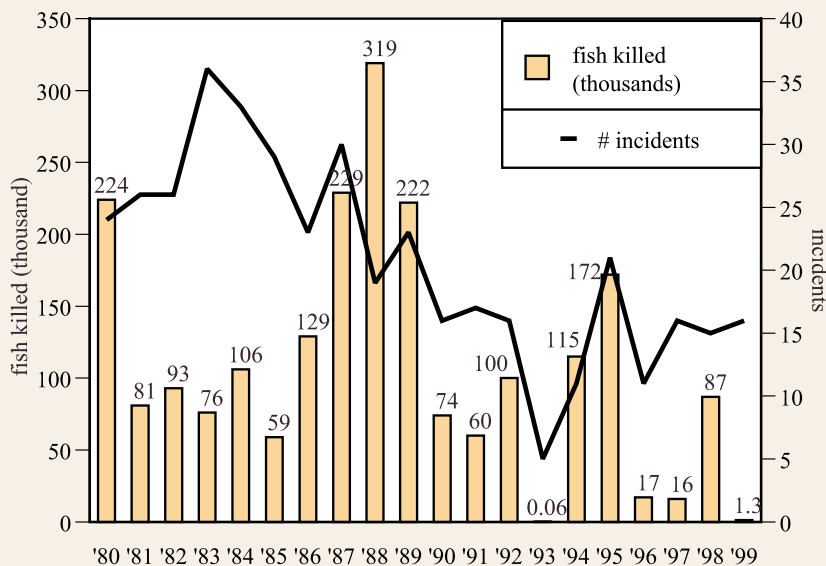
Percent of assessed waterways not or partially supporting aquatic life 22%

Number of fish killed due to pollution incidents in the past ten years 642,360

Number of fish consumption advisories in effect 8

Pollutants of concern in fish consumption advisories
mercury . . . 3 advisories
pcbs 6 advisories

Measure 1. Fish Kill Incidents and Fish Killed in Kentucky



FISH KILLS AND ADVISORIES

Measure 2. Fish Consumption Advisories in Effect in Kentucky					
Stream (counties)	pollutant	year listed	miles	source	fish
Town Br./Mud Rvr. (Logan, Butler, Muhlenberg)	PCBs	1985	71.5	dye-cast plant	all species
West Fork Drakes Creek (Simpson, Warren)	PCBs	1985	46.9	adhesive plant	all species
Little Bayou Creek (McCracken)	PCBs	1985	6.5	gaseous diffusion plant	all species
Ohio River (entire length Ky. border)	PCBs	1989	663.9	industry urban runoff	*
W. Ky. Wildlife Area (McCracken)	mercury	1993	5 ponds	unknown	bass
Green River Lake (Taylor, Adair)	PCBs	1994	entire lake	gas compression station	catfish carp
All waterways	mercury	2000	all	unknown	all species
Metropolis Lake	mercury PCBs	2000	entire lake	unknown	all species

mercury releases from power plants. New requirements are not expected to go into effect until 2004.

In July 2000, a fish advisory was issued for Metropolis Lake in McCracken County because of elevated polychlorinated biphenyls (PCBs) and mercury. The advisory recommends that no more than one meal per month of most fish found in the lake should be eaten. Six fish consumption advisories issued previously remain in effect in Kentucky.

PCBs (probable human carcinogens, according to the U.S. Environmental Protection Agency and Centers for Disease Control) and mercury are the contaminants of concern in the fish consumption advisories issued in Kentucky. The Ohio River advisory was modified in 2000 in response to declining levels of PCBs found in paddlefish. Limited consumption of paddlefish is now allowed. In addition, the pesticide chlordane has been removed as a contaminant of concern in the Ohio River fish consumption advisory. Levels of this contaminant have decreased.

Measures - notes and sources

Measure 1. Incidents as reported and investigated by the Ky. Department of Fish and Wildlife Resources. Source: Ky. Division of Water, Ky. Department of Fish and Wildlife Resources.

Measure 2. The Ohio River and Mud River advisories are based on Great Lakes Advisory Protocols. Other advisories based on U.S. Federal Drug Administration action level guidelines. *Consumption guidelines providing for limited consumption of paddlefish, carp, channel catfish, smallmouth buffalo, white bass, white crappie, hybrid striped bass, drum, sauger, black bass, channel catfish and blue catfish have been specified by the Ky. Department for Public Health. Source: Ky. Division of Water, Ky. Department for Public Health.